Department of Energy
Washington, DC 20585
November 18, 2003

MEMORANDUM FOR DISTRIBUTION

FROM: JESSIE HILL ROBERSON
ASSISTANT SECRETARY FOR
ENVIRONMENTAL MANAGEMENT

SUBJECT: Approval and Issuance of Revision 0 of the Basis for Interim Operations (BIO) and Technical Safety Requirements (TSR) for the Waste Isolation Pilot Plant (WIPP) Central Characterization Project (CCP) Mobile Waste Characterization and Loading Units (MCUs)

The purpose of this memorandum is to approve and issue the subject safety basis documents and the Application Guide, which are attached for your appropriate use. The Carlsbad Field Office (CBFO) will be responsible for configuration control and maintenance of the Safety Basis (SB), including determination of Unreviewed Safety Questions.

The Department of Energy (DOE) has implemented a process to characterize, certify and load Transuranic (TRU) waste for transportation and disposal at the WIPP in Carlsbad, New Mexico. Per WIPP waste acceptance criteria, legacy or "Retrievably stored" TRU waste is required to undergo nondestructive examination, nondestructive assay, head space gas sampling and analysis, and in some cases visual examination prior to being loaded into Transuranic Package Transporter Model II (TRUPACT II) shipping casks using a mobile TRUPACT II Loading Unit. As part of DOE's complex-wide strategy, legacy TRU waste located at approximately 28 sites will require use of the MCUs. In support of this critical Environmental Management (EM) mission, SB documents have been prepared in accordance with Title 10 of the Code of Federal Regulation 830, Subpart B and its allowed safe harbor methodology, DOE-STD-3011-2002. By meeting the requirements of the BIO and TSR, in conjunction with the citing criteria in the Application Guide, MCU characterization, certification, and loading operations at each host site can be authorized without performing additional safety analyses.

The operational readiness process used should be streamlined; focusing on the interfaces, using graded approach, and based on the simplicity of the MCU operation, CCP personnel qualification and experience, and the similarity of MCU activities that have been performed around the DOE complex. The typical operation of the MCU involves material quantities that are within the nuclear hazard category 3 thresholds or slightly above the category 2 thresholds defined

by DOE-STD-1027. The DOE complex has many years of experience with characterization activities by applying the methods and equipment that are used in the MCUs. The characterization, certification and TRUPACT II loading activities are routine and well established. Therefore, the MCUs are determined not to represent an initial startup; rather a restart of an approved operation/activity which represents a facility modification to Hazard Category 2 and 3 nuclear facility operations. As such, my designee or I shall serve as the Authorization Authority for the restart of each deployment.

The concept of a pre-approved SB, which can be adopted at multiple sites and includes the use of same or similar sets of equipment that are operated by pre-certified CCP personnel, carries with it the benefit of previous readiness assessments as well. Once the common elements of implementation are verified (e.g., WIPP CCP operating procedures, operator qualification process, and equipment functional checks), these aspects of a readiness review need not be repeated at each host site. Instead, they will be subject to periodic audits and assessments as part of the CBFO Quality Assurance program. Once equipment has been operated, an Operational Readiness Review need not be repeated for each site, or upon return to a site. A Readiness Assessment (RA) could be utilized in these cases, which will focus on the citing criteria and interfaces between the host site and the CCP operators, with approval by myself or my designee as the Authorization Authority. Criteria for performance of the RA are recommended in the Application Guide.

For new MCUs that will be deployed in the future, the Manager of CBFO will be responsible for amending the SB in accordance with the CBFO/WIPP configuration control process. Dae Chung, Senior Technical Advisor will provide the necessary technical direction and approval of the amendments on my behalf. For each initial deployment, WIPP MCUs that have not been used will require a more extensive review. As such, my designee or I shall serve as the Authorization Authority for the restart of initial deployment. This action will verify that the equipment, personnel, and procedures are capable of supporting planned characterization operations.

If you have any questions, please call Mr. Dae Chung, Senior Technical Advisor, Office of Safety and Engineering, at (301) 903-3968.

Attachments

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Basis for Interim Operation (BIO) for the WIPP Mobile Characterization Units

Revision 0

October 2003

APPROVAL:

Jessie Hill Roberson,
Assistant Secretary for
Environmental Management